



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/579,211

05/12/2006

Toshihiko Shirasagi

SON-3162

6592

23353 7590 01/19/2012  
RADER FISHMAN & GRAUER PLLC  
LION BUILDING  
1233 20TH STREET N.W., SUITE 501  
WASHINGTON, DC 20036

EXAMINER

VERDERAME, ANNA L

ART UNIT

PAPER NUMBER

1722

MAIL DATE

DELIVERY MODE

01/19/2012

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

---

*Ex parte* TOSHIHIKO SHIRASAGI  
and SHINJI MINEGISHI

---

Appeal 2011-002709  
Application 10/579,211  
Technology Center 1700

---

Before CHUNG K. PAK, LINDA M. GAUDETTE, and  
KAREN M. HASTINGS, *Administrative Patent Judges*.

PER CURIAM

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134 from the Examiner's decision rejecting claims 1, 4-7, and 10. An oral hearing was held on January 11, 2011. We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b).

We AFFIRM.

The Examiner rejected claims 1, 4-7, and 10 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Kouchiyama<sup>1</sup>, Saito<sup>2</sup>, Yamada<sup>3</sup>, and Lee<sup>4</sup> (App. Br. 5; Ans. 3). Appellants state that claims 1, 6, 7, and 10 “stand or fall together” (App. Br. 6); and separately argue the group of dependent claims 4 and 5 which also “stand or fall together” (App. Br. 16). Method claim 1, corresponding product claim 7, and dependent claim 4 are representative and are reproduced in the "Claims Appendix" of Appellants' Brief (App. Br. 20-21).

Upon consideration of the evidence on this record and each of Appellants' contentions, we find that the preponderance of evidence on this record supports the Examiner's conclusion that the subject matter of Appellants' claims 1 and 7, as well as separately argued dependent claim 4, is unpatentable over the combination of Kouchiyama, Saito, Yamada, and Lee<sup>5</sup>. Accordingly, we sustain the Examiner's rejection of the claims for the reasons set forth in the Answer, which we incorporate herein by reference. Claims 6 and 10 fall together with claim 1 and 7; claim 5 falls together with claim 4.

We provide the following for emphasis only. Appellants' briefs do not dispute the Examiner's factual finding that Saito teaches the oxygen concentration of an inorganic resist layer may increase (or decrease) toward the surface of the substrate; rather, Appellants argued that “[i]n the **absence** of a transition metal within Saito, the oxygen concentration of an incomplete

---

<sup>1</sup> JP 2003-315998, published November 6, 2003 (as translated)

<sup>2</sup> 4,786,538, issued Nov. 22, 1988

<sup>3</sup> 4,916,048, issued Apr. 10, 1990

<sup>4</sup> JP 2001-344826 A, published December 2001 (as translated)

<sup>5</sup> We note that the Examiner states that Lee is “used solely to meet the limitations of [dependent] claims 6 and 10.” (Ans. 11).

oxide of a transition metal being increased toward the surface of a substrate is also ***absent*** from within Saito.” (App. Br. 14; emphasis in original).<sup>6</sup> We are not persuaded by Appellants' contention, because the Examiner's factual finding that Yamada explicitly exemplifies the functional equivalence of a sub-oxide film of Te, as discussed in Saito, and sub-oxide films of transition metals such as Mo and W, as discussed in Kouchiyama, is reasonable (*see, e.g.,* Ans. 10, 12, 13). Furthermore, as pointed out by the Examiner, Kouchiyama and Saito, as well as Appellants' claims, encompass an alloy of a transition metal, such as MoTeO<sub>x</sub> (*e.g.,* Ans. 7, 8, 9). Appellants have not provided any persuasive technical reasoning nor pointed to any evidentiary basis on this record to support their position of nonobviousness of the subject matter of the claims on appeal.

#### TIME PERIOD FOR RESPONSE

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

ORDER

AFFIRMED

cam

---

<sup>6</sup> At the oral hearing, the Appellants' representative argued, for the first time on appeal, that Saito does not teach an increase in oxygen content towards the surface of the substrate, but only a decrease. Since this argument was not timely raised in the briefs, it has not been considered on appeal. 37 C.F.R. § 41.47(e)(1) (2010).